Mission Continuity Program
Elements of the BETH3 Model:
Loss of Technology

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Purpose of today’s presentation

• Review: University's Mission Continuity initiative
• Overview of the BETH3 model
  – How it functions within the Mission Continuity effort at Penn
• More in-depth information about Loss of Technology plans
Mission Continuity: vision

• Develop **sustainable**, University-wide program

• **Uphold core missions** of the University (research, teaching, service)

• **Continue programs and systems** that may be impacted or threatened in the case of a disruption to normal operations, a crisis, or a disaster.
Some definitions

- **Emergency response vs. continuity of operations**
  - Immediate actions vs. keeping critical functions of the organization going

- **Critical functions, processes or operations**
  - Necessary to keep key University services running

- **Incident response**
  - Usually for loss of facility
  - Includes evacuation, e.g.

- **Disaster recovery**
  - Recovering lost technology
History: criticality filters

- Spring/summer 2008: **criticality filters** completed by Schools and Centers
- Contents:
  - Inventory of **critical functions and assets** needed to maintain an organization’s mission
  - Information on **desired or required recovery time**
  - Whether recovery plans were in place
- Raised awareness
What we learned: oh, no!

— Over **2000** processes, functions or assets deemed **critical**
  • i.e., needed to be restored within 5 days
— Nearly **30%** were deemed necessary to be restored within **24 hours**
— Over **2/3** reported there were no plans
Results of the criticality filter

• Assembled committee to choose software
  – ISC, OACP, PSOM, Purchasing, EVP, Provost’s Office
• Database software Shadow-Planner selected winter 2009
  – Web-based
  – Configured and piloted FY09
Structure: Mission Continuity Leadership

• Provide structure for Schools and Centers to develop plans

• Work with Mission Continuity Representatives and Plan Liaisons

• Provide training and additional support
  – askmc@lists: e-mail for help
  – Website
  – Monthly user group meetings

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1. Determine their organization’s planning strategy and needs
   • Centralized vs. distributed model; PSOM probably do a combination
   • Staff needing training

2. Develop Mission Continuity Foundation Plans

3. Enter plans into Mission Continuity system

4. Test and maintain plans
Mission Continuity

Plan = Respond = Recover

Mission continuity planning is designed to ensure that the University is prepared to resume operations as efficiently as possible in the event of a crisis (such as a fire, flood, or other cause of interruption in operations). As part of Penn’s Mission Continuity program, Schools, Centers and departments are responsible for developing mission continuity plans and recording them online using special software tailored for Penn, called Shadow-Planner.

Who is responsible?

Each School and Center will identify people responsible for developing and updating mission continuity plans. These plan liaisons and plan contributors will be trained in using the software, so they can easily enter and maintain their plans in the University’s Shadow-Planner repository. A mission continuity representative will also be designated in each School and Center. These representatives will serve as a conduit for two-way communications and be responsible for sharing and distributing important program information within their organization and sharing lessons-learned and feedback with other program participants. Some individuals may serve in more than one role. For example, the same person may be both a plan liaison and plan contributor.

Who benefits?

The University benefits from having consistent and accessible mission continuity plans for all organizations and buildings. Should disaster strike, these plans will provide the information necessary to help Schools and Centers resume their operations as quickly as possible.

More information

On this site, you will find guidance on creating a mission continuity plan, links to the tools the University provides for mission continuity planning, information on where to get help, and details about the overall Mission Continuity program.

If you have questions or want more information about the Mission Continuity program, please send an email to askmco@lists.upenn.edu and someone will be in touch to address your concern or question.
Foundation Plan Components
defined by Provost and EVP

- Critical processes and functions
- Call lists
- Roles and responsibilities
- Building/facility information
- Necessary equipment and supplies
- Key technology and system applications
- Vital documents
- Key third-party vendor/partner information
Foundation Plan Methodology: BETH3

- Loss of Building

- Loss of Equipment
  – Includes vital documents

- Loss of Technology

- Loss of Human Resources

- Loss of Third-party Vendors/Partners
Loss of Technology plans

• Two categories:
  1. Disaster recovery (DR)
  2. Continuity of operations: what to do while systems are down
     • Workarounds
     • Alternatives
     • Backups

• Includes software and hardware (NOT included in Loss of Equipment)
Technology considerations

• Adequate planning often requires actions in advance of outage or emergency, rather than just reactive procedures
  – Running DR tests
  – Training people in using workarounds

• Technology often relies on electrical power
  – Consider alternative power sources (generators, other facilities)

• May involve interaction with vendors or other external partners
  – Ensure that substitute equipment can be obtained quickly if necessary
Disaster Recovery (DR)

- Alternative site such as Sungard
- Run regular DR tests
  - ISC DR service in conjunction with Sungard: https://www.mr.isc-seo.upenn.edu/Pages/BC.aspx
- Utilize a service such as ISC’s
  - ISC Back-it-up service: https://www.mr.isc-seo.upenn.edu/Pages/BIU.aspx
Continuity of Operations

• Technology plans often interact with **Loss of Equipment** or **Loss of 3rd-party vendor** plans
• Backups
• Identify workarounds in advance
  – Make sure people are trained in using them
• Identify alternatives
  – Make sure there can be a smooth transition to the alternative system
• Develop and activate communications plan
  – Contact people who use the technology Regularly
  – Send regular updates
Foundation Plan Structure

• Plan structure in database (Shadow-Planner)
  – Triggers, Actions, Responsible persons, Procedures
  – When, What, Who, How

• How it looks in the database
Triggers: often time-related

- **Duration**
  - Technology unavailable for:
    - 3 hours – 1 day
    - 1-3 days
    - 3 days - 1 week
    - 1-3 weeks
    - 3 weeks to 1 semester

- **Time of year**
  - Summer vs. academic year

- **Time of day**
  - During business hours
  - After hours
Sample plans: Continuity of Teaching/Research

- Committees assembled 2009-2010
- Representatives from undergraduate Schools and several Centers
- Concerned with continuity of instruction or research in the event of any kind of outage
- Total of 10 sample plans (BETH3) usable by any School
- Also usable by Centers as plan templates
Constructing a plan

• Start with Pre-Planning Questionnaire (PPQ)
  – Available on Mission Continuity website
  – Use for
    • Interviews
    • Ask relevant people to complete all or part of it
• Make into plan in a spreadsheet template
  – Template available on Mission Continuity website
  – Cut and paste information into Mission Continuity tool
Mission Continuity training and support

Knowledge Link — Mission Continuity Planning Curriculum:
- Mission Continuity Knowledge Building module
- Mission Continuity: Shadow-Planner Application
- Information Security and Privacy

PLUS:
- Additional site visits and workshops on demand
- Website
- Monthly user group meetings
- askmc@lists
Finding us

• Website:  www.upenn.edu/missioncontinuity

• Questions?  askmc@lists.upenn.edu

• Shadow-Planner:  http://missioncontinuity.upenn.edu